

Cloud Native Architecture and Engineering



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Information Systems Engineering
TU Berlin

About CNAE



Cloud Native Architecture and Engineering is an integrated course specifically tailored for master students of computer science and related degree programs.

CNAE Learning Outcome:

“Students understand the principles of architecting and engineering cloud-native software systems. They are familiar with architectural opportunities and constraints that the cloud offers and imposes and are able to competently assess, select, and apply fitting technologies to meet given functional and non-functional requirements”

→ Please refer to the [module description](#) and the introduction lecture on 21/04/2023 for content questions.

CNAE Team



Prof. Stefan Tai



Sebastian Werner



Maria Borges



Elias Grünewald



Nicola Leschke

CNAE Concept - Integrated Course

CNAE consists of

- Lectures: CNAE principles, concepts and technologies (presented round-robin by all members of the CNAE team, in classroom / in person attendance!)
- Guest Lectures: CNAE best practices, patterns, and experience reports (by industry experts, both platform developers and application solution architects, in classroom / in person attendance!)
- Office Hours: In case of concrete questions, we offer virtual office hours
- Practical assignment: Hands-on experience with cloud native engineering
- Reading assignment: Research on current topics of cloud native architectures and engineering

} in groups
of 5
students

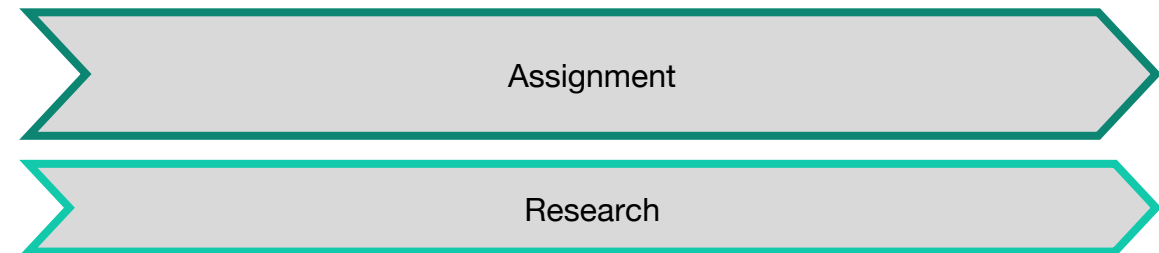
→ Lectures & office hours will alternate irregularly:
Tue, 10-12 (BIB 014) and
Fri, 12-14 (HE 101)
→ see [schedule](#)

CNAE Roadmap

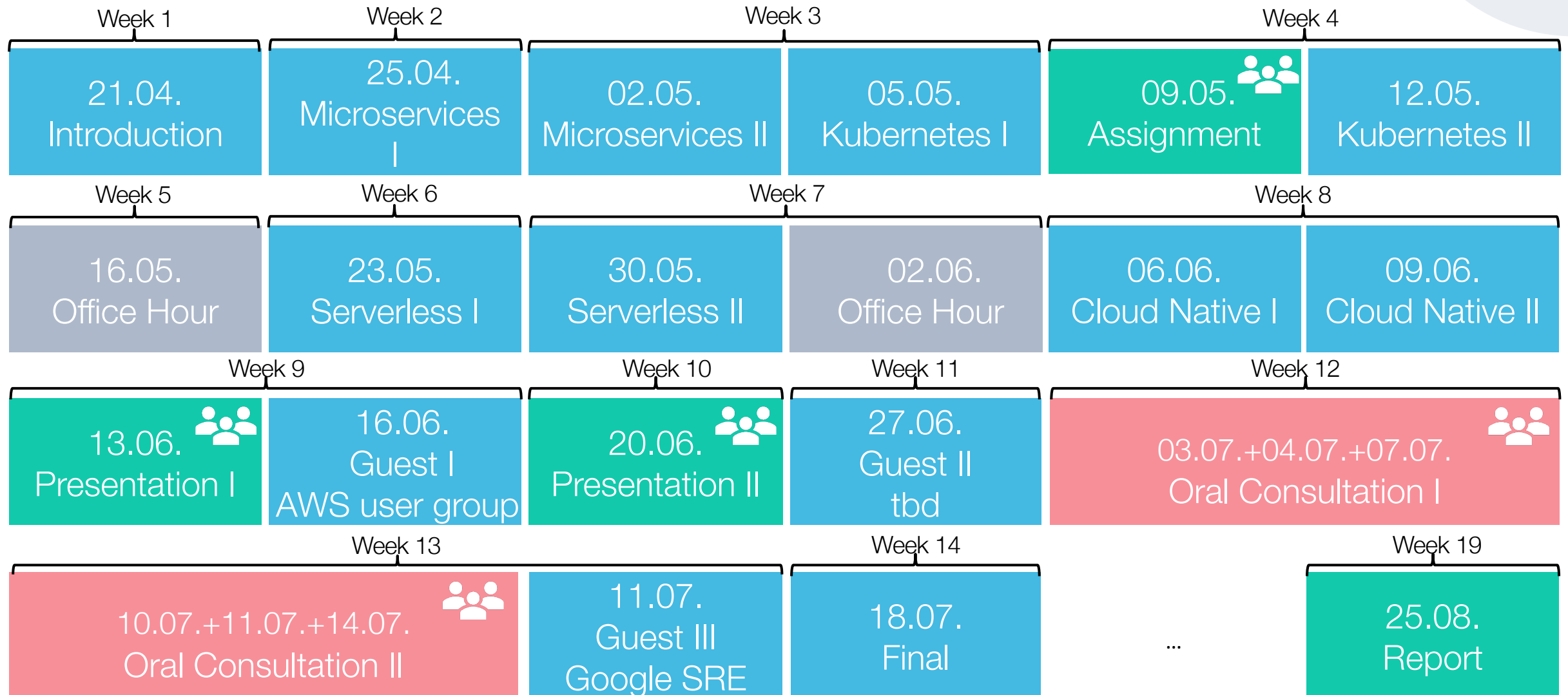
Lectures:



Assignments:



CNAE Schedule (preliminary)



CNAE Schedule – Important Dates

Deadlines:

- Application: **24/04/2023, 09:00**
- Registration: **15/05/2023, 23:59**

Portfolio examinations will take place on:

- **13/06/2023 + 20/06/2023**: Reading assignment (research) and presentation
- **03/07-14/07**: Oral consultations
- **25/08/2023**: Hand in reports

Examination in
presence.
Physical presence is
required!



Physical presence is highly recommended on 09/05/2023 for the introduction to the practical assignment.

Grading

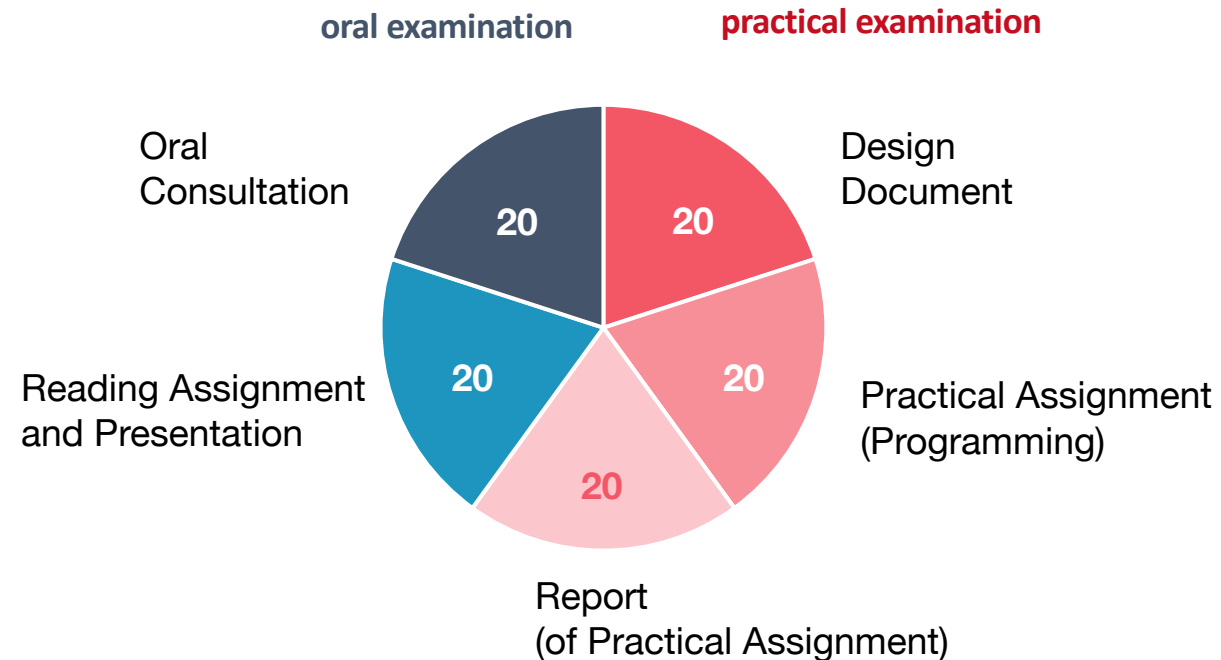
Maximum points: 100 („Portfoliopunkte“)

Points are based on our assessment of your work
(and presentations)

Individual grading, also for group work

Grading Scale:

1	1,3	1,7	2,0	2,3	2,7	3,0	3,3	3,7	4,0	5,0
95	90	85	80	75	70	65	60	55	50	<50



Online Learning via ISIS

For the most up-to-date information, please refer to the ISIS course page

- Use the *Discussion* forums, if you have any questions
- Feel free to answer your peers' questions
- We will keep you updated through announcements about upcoming deadlines, etc.

Make sure you are enrolled in the ISIS course!

<https://isis.tu-berlin.de/course/view.php?id=32802>

(Check your TU-emails regularly for announcements!)

Application

CNAE has a capacity of 50 students

→ Selection process necessary: <https://isis.tu-berlin.de/mod/questionnaire/view.php?id=1577380>

Application deadline: **24.04.2023, 9:00am** (firm deadline!)

We will let you know about your acceptance shortly after – **please confirm your spot!**

Priority will be given to students of the following programs:

- Computer Science/Informatik (MSc)
- Information Systems Management/Wirtschaftsinformatik (MSc)
- Wirtschaftsingenieurwesen (MSc)
- Medieninformatik (MSc)
- Computer Engineering (MSc)
- Electrical Engineering (MSc)

Within this group, we will select students based on [AllgStuPO § 48 \(3\) Satz 2f.](#)